

ABSTRACT

[0044] Compositions and methods for planarizing or polishing a surface, particularly a semiconductor wafer surface. The polishing compositions described herein comprise (a) a liquid carrier; (b) purified clay; and optional additives, such as (c) a chemical accelerator; and (d) a complexing or coupling agent capable of chemically or ionically complexing with, or coupling to, the metal and/or insulating material removed during the polishing process. The complexing or coupling agent carries away the removed metal and/or silicon dioxide insulator particles, during polishing, to prevent the separated particles from returning to the surface from which they were removed. Also disclosed are methods of planarizing or polishing a surface comprising contacting the surface with the compositions.